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CORNELL UNIVERSITY

ANNOUNCEMENT

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OF

COURSES OF INSTRUCTION

IN THE

COLLEGE OF AGRICULTURE

1901-1902

The Regular Course in Agriculture (see p. 10).


Advanced Course in Agriculture (see p. 11).

The Special Course in Agriculture (see p. 12).

The Winter Course in Agriculture (see p. 20).

The Winter Dairy Course (see p. 21).

ITHACA, NEW YORK
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THE COLLEGE OF AGRICULTURE.

FACULTY.

- JACOB GOULD SCHURMAN, A.M., D. Sc., LL. D., President.
ISAAC PHILLIPS ROBERTS, M. Agr., Dean of the Faculty of Agriculture, Professor of Agriculture, Director of the College of Agriculture and of the Experiment Station.
GEORGE CHAPMAN CALDWELL, B.S., Ph. D., Professor of Agricultural and General Chemistry.
JOHN HENRY COMSTOCK, B.S., Professor of Entomology and General Invertebrate Zoölogy.
LIBERTY HYDE BAILEY, M.S., Professor of General and Experimental Horticulture.
HENRY HIRAM WING, M.S., Assistant Professor of Animal Industry and Dairy Husbandry.
MARK VERNON SLINGERLAND, B. S., in Agr., Assistant Professor of Entomology.
JOHN CRAIG, B.S., Professor of University Extension Teaching in Agriculture and Horticulture and Supervisor of the Farmers' Reading Course.
GEORGE NIEMAN LAUMAN, B. S. A., Instructor in Agriculture and Horticulture.
ALEXANDER DYER MACGILLIVRAY, Ph. B., Instructor in Entomology.
-

THE AGRICULTURAL COLLEGE AND STATION COUNCIL.

- JACOB GOULD SCHURMAN, President of the University.
FRANKLIN C. CORNELL, Trustee of the University.
ISAAC P. ROBERTS, Dean of the College and Director of the Experiment Station.
EMMONS L. WILLIAMS, Treasurer of the University.
LIBERTY H. BAILEY, Professor of Horticulture.
JOHN H. COMSTOCK, Professor of Entomology.
-

OFFICERS OF THE STATION.

- I. P. ROBERTS, Director.
E. L. WILLIAMS, Treasurer.
E. A. BUTLER, Clerk.

OTHER OFFICERS OF INSTRUCTION AND ADMINISTRATION.

JAMES LAW, F.R.C.V.S., Veterinary Science.
GEORGE FRANCIS ATKINSON, Ph.B., Botany.
SIMON HENRY GAGE, B.S., Anatomy.
WILLARD WINFIELD ROWLEE, D.Sc., Plant Histology.
LOUIS ADELBERT CLINTON, B.S., Assistant Agriculturist.
GEORGE WALTER CAVANAUGH, B.S., Assistant Chemist.
—— ———, Assistant Cryptogamic Botanist.
—— ———, Assistant in Chemistry.
HUGH CHARLES TROY, B.S.A., Assistant in Dairy Laboratory.
JOHN WALTON SPENCER, Deputy Chief of Extension Work.
JOHN LEMUEL STONE, B.Agr., Assistant in Agriculture.
ANNA BOTSFORD COMSTOCK, Lecturer in Nature Study.
MARY FARRAND MILLER, B.S., Lecturer in Nature Study.
GEORGE NIEMAN LAUMAN, B.S.A., Instructor in Agriculture and Horticulture.
JAMES ALFRED FOORD, B.S., Assistant in Dairy Husbandry.
ARCHIBALD ROBINSON WARD, B.S.A., Assistant in Dairy Bacteriology.
WALTER W. HALL, Assistant in Cheese Making.
WEBSTER EVERETT GRIFFITH, Assistant in Butter Making.
—— ——— Assistant in charge of Spraying Experiments.
ALICE GERTRUDE McCLOSKEY, Matron Junior Naturalist Clubs.
GEORGE WALTER TAILBY, Farm Foreman.
CHARLES ELIAS HUNN, Gardener.
EDWARD ARTHUR BUTLER, Clerk.
JULIA ZITA KELLY, Stenographer—Extension Work.
LIZZIE VERONICA MALONEY, Stenographer—Experiment Station.

The College of Agriculture comprises the Departments of General Agriculture ; Animal Industry and Dairy Husbandry ; Horticulture and Pomology ; Agricultural Chemistry ; General and Economic Entomology ; the Agricultural Experiment Station, and University Extension Work in Agriculture.

EQUIPMENT.

The University grounds consist of 270 acres of land, bounded on the north and south by Fall Creek ravine and Cascadilla Gorge respectively. One hundred and twenty-five acres of the arable land are devoted to the use of the Agricultural Department. This part of the domain is managed with not only a view to securing profit, but also to illustrate the best methods of general agriculture. A four years' rotation is practiced on the principal fields; one year of clover, one of corn, one of oats or barley, and one of wheat. A dairy of twenty cows, a flock of sheep, some fifteen horses and colts, and other live stock are kept upon the farm. Nearly all of these animals are grades, bred and reared with the single view of giving object lessons which can be practiced with profit by the students on their return to their homes. A four-story barn provides for housing all the animals, machinery, tools, hay, grain, and manures. The stationary thresher, feed-cutter, chaffer, and other machinery are driven by steam power. The barn also furnishes many facilities for carrying on investigations in feeding and rearing all classes of domestic animals.

The barn is also furnished with a well equipped piggery and tool house. Not far from the main barn have been constructed four buildings with suitable yards and appliances for incubating eggs and rearing domestic fowls.

The agricultural class room is provided with a collection of grains and grasses, implements of horse and hand culture, and various appliances for carrying on instruction and conducting investigation. The whole plant is managed with a view to the greatest economy consistent with the greatest efficiency in imparting instruction.

THE DAIRY BUILDING, a two-story stone structure, 45x90 feet, was built from an appropriation of \$50,000 by the Legislature of 1893. It provides lecture rooms, laboratories, and offices, besides two large rooms for butter and cheese making, both of which are fully equipped with modern machinery and appliances. Automatic electrical apparatus for controlling the temperature in cheese-curing rooms, refrigerator room, lockers and bath rooms are also provided. The whole building is thoroughly heated and ventilated, and power is furnished by a sixty horse-power boiler and a twenty-five horse-power Westinghouse engine.

THE AGRICULTURAL MUSEUM occupies rooms on the second floor of Morrill Hall. It contains: 1. The Rau Models, being one hundred and eighty-seven models of plows made at the Royal Agricultural College of Würtemberg, under the direction of Professor Rau, and arranged and classified by him for the Paris Exposition of 1867. 2. Engravings and

photographs of cultivated plants and animals, obtained at the various agricultural colleges of Europe. 3. A collection of the cereals of Great Britain, being a duplicate of that in the Royal Museum of Science and Art at Edinburg, presented by the British Government. 4. A collection of agricultural seeds. 5. A large number of models representing a great variety of agricultural implements. The class room has been provided with special sets of diagrams and other appliances designed to illustrate the lectures on agriculture.

The agricultural library contains files of bulletins and reports from the experiment stations of the United States and Canada; it has also a file of the publications of the U. S. Department of Agriculture. The leading works on agriculture are on the shelves. The exchange list includes the principal agricultural periodicals published in this country.

THE HORTICULTURAL DEPARTMENT EQUIPMENT comprises about ten acres of land variously planted, forcing houses and a museum.

The garden and orchards contain the fruits which thrive in the north in considerable variety, and in sufficient quantity to illustrate methods of cultivation. Nursery grounds are also attached, in which are growing many species of economic plants from various parts of the world. The fruits comprise something more than sixty varieties of grapes, over fifty of apples, fifty of plums, and other fruits in proportion. A dwarf pear orchard of 300 trees, and other representative orchards, comprise the remainder of the field space, excepting such as is set aside for vegetable gardening and floriculture. There is also a collection of one hundred varieties of hardy roses and various other ornamental and interesting plants.

The forcing-houses are eight in number and cover about 6,000 square feet of ground. These, in connection with store-rooms and pits, afford excellent opportunities for nursery practice, for the study of the forcing of all kinds of vegetables and for some kinds of floriculture. A laboratory with space for forty students is used for instruction in propagation of plants, pollination, and the commoner green-house operations. There is also a mushroom house 14x80 feet and a reading room for horticultural students.

The museum comprises two unique features—the garden herbarium and the collection of photographs. The herbarium which is rapidly assuming large proportions, containing at present over 11,000 sheets, is designed to comprise all varieties of all cultivated species of plants, and it is an indispensable aid to the study of garden botany and the variation of plants. The collection of photographs comprises over 5,000 negatives, with prints representing fruits, flowers, vegetables, illustrative landscapes, glass houses, and horticultural operations. A very large collection of machinery and devices for the spraying of plants is at the disposal of students. Charts and specimens in some variety complete the museum and collection.

The library has files of many of the important horticultural and botanical periodicals and a good collection of general horticultural literature.

THE ENTOMOLOGICAL CABINET contains, in addition to many exotic insects, specimens of a large proportion of the more common species of the United States. These have been determined by specialists, and are accessible for comparison. The collection includes many sets of specimens illustrative of the metamorphoses and habits of insects. The laboratory is also supplied with a large collection of duplicates for the use of students and is equipped with microscopes and other apparatus necessary for practical work in entomology.

The insectary of the Agricultural Experiment Station affords facilities to a limited number of advanced students for special investigations in the study of the life history of insects, and for experiments in applied entomology.

THE CHEMICAL DEPARTMENT is housed in a three-story brick building 126 feet in length and of an average width of 60 feet. The Department is liberally equipped with various appliances necessary to give instruction to four hundred students in General and Agricultural Chemistry.

ADMISSION TO THE FOUR YEARS' COURSE LEADING TO THE DEGREE OF BACHELOR OF THE SCIENCE OF AGRICULTURE.

(For admission to Special and Winter Courses see pages 12 and 20.)

CONDITIONS OF ADMISSION.

Candidates must be at least *sixteen* years of age, or, if women, *seventeen*. They must have certificates of good moral character, and students from other colleges or universities are required to furnish from those institutions certificates of honorable dismissal.

Candidates for admission must file their credentials and obtain permits for examination at the Registrar's office. The results of examinations may be ascertained from the Registrar.

The following subjects are required for admission: English, Physiology and Hygiene, History [the student must offer two of the four following divisions in history (a) American (b) English (c) Grecian (d) Roman]. Plane Geometry, Elementry Algebra and either A, B, or C, as below.

A. Greek and Latin.

B. Latin and either advanced French or Advanced German.

C. Advanced French, Advanced German and Advanced Mathematics.

An equivalent of any one of the three groups, A, B and C, may be

offered, provided five counts are offered. Latin counts 3, Greek, French and German 2 each. Advanced Mathematics (Solid Geometry, Advanced Algebra, Plane and Spherical Trigonometry) 1, provided, however, that the student before graduation must have passed in one modern language and in advanced Mathematics if they were not offered for entrance.

An alternate requirement instead of Advanced Mathematics may be offered in Physics, Chemistry, Botany, Geology and Zoölogy.

For details as to subjects and methods of admission see University Register pages 33-72.

For Admission to the freshman class communication should be addressed to the Registrar. See University Register pages 33-52.

For admission to advanced standing from other colleges and universities all communications should be addressed to the Director of the College of Agriculture. See University Register pages 52-53.

For admission to graduate work and candidacy for advanced degrees, communications should be addressed to the Dean of the University Faculty. See University Register pages 64-72.

ADMISSION WITHOUT EXAMINATION.

I. ON REGENTS' CREDENTIALS.

Diplomas and sixty count academic certificates issued by the Regents of the University of the State of New York are accepted in the place of examination in all the subjects required for entrance which are covered by such credentials, including upon the recommendation of the University departments concerned, the subjects of French and German, Physics, Chemistry, Botany, Geology and Zoology. A statement from the teacher giving in detail the work done and the proficiency attained in these subjects must be submitted by the holder of the diploma.

Certificates and pass cards issued by the Regents are not accepted unless they are presented by the holder of a Regents' Diploma or sixty count academic certificate.

To secure exemption from the entrance examination in English (see page 9), the Regents' diploma or sixty count academic certificate must cover first year English, second year English, and *either* third year English or English Reading.

Application for credit in all subjects for which credit is desired, must be made at the time of the admission of the applicant, and not be postponed to any later date in his course.

Diplomas, certificates and statements should be sent by mail to the Registrar before the opening of the term.

II. ON SCHOOL CERTIFICATES.

The following rules and regulations have been adopted by the Faculty of Cornell University on the subject of admission by certificate :

1. Certificates of work done in public or private schools, in or out of the state will not be accepted in lieu of examinations, unless the applicant has completed a full course in the school, and has been duly graduated after at least one year in the school, and the University authorities are satisfied regarding the standing of the school.

2. The application for the admission of a student by certificate must be made by the principal of the school and not by the candidate himself.

3. The application from the principal must be accompanied by full and specific information with regard to the completeness and thoroughness of the studies and course in which instruction is given. In case a catalogue or circular is published, a copy thereof should also be furnished.

4. Admission by certificate is in all cases provisional. If a student fail in any subject in the University that depends upon an entrance subject for which a certificate has been accepted, the credit for that entrance subject may be cancelled. Certificates from schools whose students prove to be imperfectly fitted will ultimately not be considered.

5. Subjects in which an examination has been passed for admission to the school, may be included in the certificate, but in all cases the full information called for by the blank should be given.

6. *No school certificate will be accepted in place of entrance examination in English (see pages 7 and 9).*

7. The committee having charge of the acceptance of certificates may meet at any time during the collegiate year, but the certificates should be forwarded as soon after the graduation of the student as is possible, and at least as early as the first of September.

8. The University does not engage in advance to accept the certificates of any school, and the previous acceptance of such certificates merely raises the presumption that similar certificates may be accepted again, but does not establish a permanent right to such acceptance.

Application for credit in all subjects for which credit is desired, must be made at the time of the admission of the applicant, and not be postponed to any later date in his course.

All communications on this subject and all certificates must be addressed to the Registrar, from whom also blank forms for certificates may be obtained.

III. ON THE CERTIFICATES OF THE COLLEGE ENTRANCE EXAMINATION BOARD.

The certificates issued as the result of the examinations to be held in June by the College Examination Board of the Middle States and Maryland will be accepted under the same conditions as if such examinations were held by this University.

For further particulars address Secretary of College Entrance Examination Board, Sub-station No. 84, New York City.

ADMISSION ON EXAMINATION.

Examinations in all the subjects required for admission to the University are held *at Ithaca* in September, at the beginning of the first term.

The certificates issued as the result of the examinations to be held in June by the College Examination Board of the Middle States and Maryland will be accepted under the same conditions as if such examinations were held by this University. For further particulars address Secretary of College Entrance Examination Board, Sub-station No. 84, New York City.

No examination of candidates for admission will be held at any other times or places. Further information in regard to the time of examinations in September may be found in calendar. Specimen copies of examination papers will be sent on application to the Registrar.

INSTRUCTION.

PLAN OF INSTRUCTION.

The instruction in the College of Agriculture is comprised in the following general lines :

The Regular Course in Agriculture covers a period of four years. It is designed to afford an education as broad and liberal as that given by other departments of the University, and leads to the degree of Bachelor of the Science of Agriculture, (B. S. A.)

THE COURSE IN AGRICULTURE.

LEADING TO THE DEGREE OF BACHELOR OF THE SCIENCE OF AGRICULTURE.

<i>Freshman Year.</i>	No. Course.	1st Term.	2d Term.
Botany.....	1, 2	3*.....	3
Invertebrate Zoölogy, Entomology....	1, 7, 3	2	3
English.....	1	3	3
Freehand and Linear Drawing.....	D 1	2	2
Chemistry.....	4	3	3

In addition to the above the required Drill and Gymnasium must be taken.

<i>Sophomore Year.</i>	No. Course.	1st Term	2nd Term.
English	2	3	3
Physics.....	2a	2	2
Agricultural Chemistry.....	26	4	4
Physiology Domestic Animals.....	20	1	2
Dairy Husbandry, Animal Industry.	22, 21	3	4
or Horticulture.....	1, 5	3	3

In addition to the above the required Drill must be taken.

Elective.....	—	2-3	0-3
<i>Junior Year.</i>	No. Course.	1st Term.	2d Term.
Political Economy.....	51, 62	3	3
Elective.....	—	12-15	12-15
<i>Senior Year.</i>	No. Course.	1st Term.	2d Term.
Applied Agriculture.....	1-4	6	6
Farm Buildings.....	10	1	1
Thesis (see below).....	—	2	2
Elective.....	—	6-9	6-9

The remaining part of the course is elective, † with the conditions that at

*Hours of class room work per week or the equivalent in laboratory practice.

† All electives must be chosen by the student at the beginning of the year with the previous written approval of the Director.

least one-half of the entire elective work of each year, including the thesis and applied agriculture in the senior year, must be in work given by the departments of agriculture and horticulture and in the courses in agricultural chemistry, economic entomology, origin of soils, diseases of farm animals, zootechny and silviculture.

The following list comprises the chief technically "Agricultural" electives :

	No. Course.	1st Term.	2d Term.
Agriculture.....	6	I	I
"	9	2	2
Agr. An. Industry.....	21 .....	.....	4
" Butter Making.....	22	3 .....	.....
" Cheese Making	23 .....	.....	2
" Poultry Keeping.....	27 .....	.....	2
Horticulture.....	1	3 .....	.....
"	2	2 .....	.....
"	3	I .....	.....
"	4	I .....	.....
"	5 .....	.....	3
"	6 .....	.....	2
"	7 .....	.....	I
"	8	2	2
"	9	I-3	I-3
"	10 .....	.....	.....
Agr., Chemistry.....	27	I	I
" Chem., Analytical	14	-	-
Entomology	4-5	2-3	2
"	6	-	-
" (summer) .....	.....	- .....	-
Veterinary Science } Diseases of Farm Animals..... }	.....	.....	I
Vet. Sci. Zootechny.	37 .....	.....	5
Geology, Origin of soils.....	32	2 .....	.....
Forestry (Silviculture).....	2	5 .....	.....

Those who, at entrance, offer Latin for one of the advanced entrance subjects, must make up two years of a modern language in the University.

Arrangements are made to give seminary instruction in the College of Agriculture to teachers and advanced students who desire to pursue Nature-Study.

Students receive instruction not only in the College of Agriculture, but also in the following named Colleges and Departments: Botany, Freehand Drawing, Physics, Political Economy, Physiology, Vertebrate Zoölogy, Hygiene, Mathematics, French, German, and Drill and Gymnasium; *Geology, Veterinary Science, Civil Engineering and Mechanical Engineering.* The elective work is in italics.

ADVANCED OR GRADUATE WORK IN AGRICULTURAL SCIENCE.

The advanced instruction is designed to fit men for teachers and experimenters, and it may lead to the degrees of Master of Science

in Agriculture, and to Doctor of Philosophy. The laboratories, dairy building, farm gardens, orchards and libraries give ample facilities for the prosecution of independent work of a high character.

A yearly fellowship of an annual value of \$500 is assigned to the following group of departments: Agriculture, Horticulture and Veterinary Science. See Univ. Register, page 65.

THE SPECIAL COURSE.

The Special Course is intended for young persons who cannot well spend four years in preparing themselves to become farmers and who yet wish to avail themselves of technical and practical instruction in modern scientific agriculture.

Persons who are eighteen years of age and who furnish evidence to the Director that they are able to pursue the work elected in a satisfactory manner, are admitted to the Special Course without examination upon recommendation of the Director of the College. The number of hours and the courses elected must be approved by the Director. This course may extend through either one or two years. The required work as given on page 10 is designed for students studying for the degree of B.S.A. and not for Special students.

Special students, during the time they are in the University, enjoy equal advantages in all respects with students who are studying for a degree. They receive instruction in the same classes as the regular or four-year students, but their work is more concentrated upon those subjects that have a direct bearing upon practical agriculture. Applications for admission to the Special Course should be made personally or by letter to the Director.

SYNOPSIS OF THE WORK.

Agriculture.—The instruction in Agriculture proper, treats of soils and their preparation; harvesting and marketing general and special crops; laying out and improving farms; draining and irrigation; farm buildings and fences, location, plans and construction; farm yard manures and commercial fertilizers, composition, manufacture, preservation and application; farm accounts, business customs, rights and privileges; employment and direction of laborers; farm implements and machinery,

use, care and repairs ; grasses and forage plants ; weeds and their eradication ; swine, sheep and horse husbandry, breeds and breeding, care, management, and feeding.

The practice will include setting up and running farm machinery and engines ; the sharpening and repairing of small tools, drawing plans and specifications of farm buildings ; mapping drains, and farm book-keeping.

Dairy Husbandry.—The class-room instruction consists of lectures upon the production of milk and its manufacture into its various products. The dairy house practice will comprise the making of butter and cheese by the most approved methods ; testing of milk as to purity and fat content ; the use and care of centrifugal separators and other creaming devices and the details of creamery and cheese factory management.

Animal Industry.—Lectures will be given on the origin and formation of the various breeds of dairy and beef cattle ; their selection and improvement ; the improvement of native cattle and formation of new breeds ; the composition of stock foods and their combinations into rations suitable for various purposes. Practice will be given in tracing and tabulating pedigrees ; judging by scale of points ; and computing rations.

Poultry Keeping.—Will include instruction in breeds and breeding ; feeding and management ; incubation, artificial and otherwise ; construction of poultry houses and their management.

Horticulture.—The instruction in Horticulture is given in twelve courses. Course 1 is designed to afford a general scientific foundation for the prosecution of all studies relating to the variation and amelioration of plants under conditions of domestication and cultivation, and it has only indirect reference to horticultural methods and practices. Course 6 is intended for those advanced students who have had some training in systematic botany, and who desire to familiarize themselves with the complex botany of cultivated plants. Courses 4, 5, 7, 8, 9, 10, are calculated to afford the latest information and methods connected with the commercial cultivation of plants, and in all of them laboratory work and field practice are important factors.

Entomology, General and Economic.—Lectures on the characteristics of the orders, sub-orders and more important families ; laboratory and field work ; discussion of the more important insect pests and the methods of combating them.

Agricultural Chemistry.—Courses of lectures on this subject treat of the chemistry of the plant and its growth, of the atmosphere, soil, fertilizers, the feeding of farm crops and animals, and the composition and utilization of the products of the farm.

Botany.—The work includes a study of representative plants of various groups ; the fundamental principles of plant life and relationship ; the distribution of plants over the surface of the earth ; the preparation of an herbarium ; field excursions and laboratory practice.

Political Economy.—Twelve lectures by appointment. (Special for Winter Course Students.)

The Experiment Station, which is a department of the University, offers opportunity for students to observe and study the investigations which are being carried on in many branches of animal and plant industry.

COURSES OF INSTRUCTION.

A. AGRICULTURE.

1. Wheat culture ; preparation of the soil, seeding, insects, harvesting, marketing ; farms, selection and purchase, location with regard to markets, roads, schools, society ; farm buildings, location, plans, construction, liability of contractors ; fields, shape and size ; fences and gates, construction repairs, durability of woods ; farm and public roads, bridges and culverts ; farm yard manures, composition manufacture, preservation, application ; commercial fertilizers, composition and use. Farm accounts ; business customs, rights and privileges, form of contracts, notes, deeds, mortgages ; road laws ; employment and direction of laborers ; swine husbandry, breeds, feeding, management. Lectures. First half-year. Daily except S., 11. Five hours. *Morrill 19*. Professor ROBERTS.

2. Inspection of roads, bridges and farm buildings. Agricultural survey and comparison of farms ; practice in fields, shop and barns. First half-year. T., 2-5. One hour. Professor ROBERTS.

3. The Horse ; breeds and breeding, feeding, education, care and driving ; sheep husbandry, breeds and varieties, management and care, early lamb raising. Farm drainage ; construction, material, cost and utility ; history of plows and plowing ; farm implements and machinery, use, care and repairs ; corn, oat, barley, bean, beet, flax, hop, potato and tobacco culture ; grasses and forage plants ; silos and silage ; weeds and their eradication. Lectures. Second half-year. Daily, except S., 11. Five hours. *Morrill 19*. Professor ROBERTS.

4. Judging and scoring horses and sheep ; work in shop and barns ; running engines and other farm machinery ; use of tools, implements, draining, surveys and mapping. Second half-year. T., 2-5. One hour. Professor ROBERTS.

5. Special Investigations. For graduates and advanced students. Hours by appointment. Professor ROBERTS.

6. Seminary work for advanced students. One hour. By appointment. *Morrill 19*. Professor ROBERTS.

7. History of Agriculture. Lectures and reports. Open to seniors and graduates, and to others by special permission. First half-year. M., W.,

9. Two hours. *Morrill 17B*. Mr. LAUMAN.

8. Economics of Agriculture. Lectures, discussions and reports. Designed to introduce the student to the methods and results of the application of agricultural and economic principles to agricultural practice. Open to seniors and graduates. Requires a working knowledge of French or German. Second half-year. M., W., 9. Two hours. *Morrill 17B.* Mr. LAUMAN.

9. German Agricultural Reading. Open to students who have taken or are taking other courses in agriculture and who have a knowledge of German equivalent to courses 1 and 2 in that language. F., S., 9. Two hours. *Morrill, 17B.* Mr. LAUMAN.

10. Farm Buildings. Study and designing of farm buildings. Required of seniors, open to others by permission. F., 2-4:30. One hour. Forcing Houses. Mr. LAUMAN.

11. For students in Veterinary Science. Breeding, care and management of horses, sheep and swine. Stables, construction and sanitation. One hour. First half-year. Professor ROBERTS.

12. For winter course students. Lectures on the leading subjects in courses 1, 3, above, will be given as far as time will permit. Daily, except Saturday, 9. Five hours. *Morrill 19.* Professor ROBERTS and Mr. STONE.

13. For winter course students. Practice as in courses 2 and 4, in sections by appointment, one afternoon for each section per week. Christmas recess until Easter recess, 2-5. One hour. Professor ROBERTS.

Professor Roberts will be assisted by specialists in giving instruction in some of the subjects named.

B. ANIMAL INDUSTRY AND DAIRY HUSBANDRY.

21. Animal Industry. Principles of breeding, history and development, improvement and creation of dairy and beef breeds of cattle; principles of feeding, care, selection and management of dairy and beef cattle. Second half-year. Lectures. M., W., F., 12. Practice, one hour by appointment. Four hours. *Dairy Building.* Assistant Professor WING.

22. Dairy Husbandry; milk and butter. First half-year. Lectures. T., Th., 12. Practice two afternoons by appointment. Three hours. *Dairy Building.* Assistant Professor WING.

The work in this course will continue only to the Christmas recess.

23. Dairy Husbandry; cheese. Second half-year. Practice two days per week, 10-1, by appointment. Two hours. *Dairy Building.* Assistant Professor WING.

The work in this course will begin immediately after the Christmas recess and continue till the close of the Winter Course in Agriculture.

24. Dairy Husbandry. Laboratory and seminary work on special problems. Throughout year. By appointment, one to three hours. Open only to students who have had course 22. Assistant Professor WING.

25. For Winter Course Students. Animal Industry and Dairy Hus-

bandry. Principles of breeding, feeding, and selection, care and management of dairy cattle. Daily, 8. Practice one afternoon by appointment. *Dairy Building*. Assistant Professor WING.

26. For Dairy Course Students. Lectures on milk and its products; breeding and feeding, daily, 8; lectures on subjects related to dairy husbandry, daily, 9; practice in butter and cheese making and in dairy laboratory, daily, 10-4:30. *Dairy Building*. Assistant Professor WING, Messrs. HALL, GRIFFITH and TROY, assisted by others of the faculty of the College of Agriculture.

27. Poultry. Origin, history and classification of the domestic breeds of poultry; breeding, feeding, and management; construction of buildings, incubators and brooders. Lectures, T., Th., 12. Practice in running incubators and brooders and in judging and selecting fowls, by appointment. Two hours. Second half-year. *Dairy Building*. Assistant Professor WING.

The lectures in this course will be given between the Christmas and Easter recesses. The practice will be given only after the Easter recess.

28. For Winter Course Students. The work is the same as course 27. Lectures. T., Th., 12. Practice by appointment.

C. HORTICULTURE.

1. Evolution of cultivated Plants. Lectures and text-book. A discussion of the current hypotheses of organic evolution as applied to the modification of plants, particularly of those in cultivation. Open to students in all courses who have taken courses 1 and 2 in Botany. First half-year. M., W., F., 10. Three hours. *Morrill 19*. Professor BAILEY.

2. Greenhouse Construction and Management. First half-year. Lecture, T., 10. *Morrill 19*, and laboratory work, W., 2-4:30, at *Forcing Houses*. Two hours. Professor BAILEY and Mr. LAUMAN.

3. The Literature of Horticulture and Landscape Gardening. A seminary in the literature of the cultivation of plants and of gardens in various parts of the world, with reviews of periodical literature. First half-year. Th., 10. One hour. *Morrill 18 A*. Professor BAILEY and Mr. LAUMAN.

4. Pomology. Lectures, text-book and other class exercises upon the cultivation of fruits. Second half-year. M., W., F., 10. Three hours. *Morrill 19*. Professor BAILEY.

5. Nursery and Orchard Practice. Deals with the multiplication and subsequent care of plants, grafting, budding, making cuttings, polination, pruning, spraying, garden tools, etc. Second half-year. Lectures and text-book. T., 10, *Morrill 19*; laboratory work, W., 2-4:30, *Forcing Houses*. Professor BAILEY, Professor CRAIG and Mr. LAUMAN.

6. Principles of Vegetable Gardening. Lectures. Second half-year. Th., 10. One hour. *Morrill 19*. Professor BAILEY.

7. German or French Horticultural Reading. Open to students who have taken or are taking other courses in horticulture, and who have a knowledge of German or French equivalent to courses 1 and 2 in those languages. T., Th., 8. Two hours. *Morrill 19*. MR. LAUMAN.

8. Handicraft. Practical work in the forcing-houses and gardens, with familiar talks. One to three hours, by appointment. Professor BAILEY, MR. LAUMAN, and MR. HUNN.

9. Investigation incident to previous courses. For graduates and advanced students. Hours by appointment. Professor BAILEY and Professor CRAIG.

Seminaries are conducted when requested by students, and credit may be had for such work. The Horticulturists' Lazy Club meets every Monday evening.

10. Fruit-growing. For Winter Course Students. An examination of the principles of fruit growing with laboratory practice in the propagation of plants. Professor CRAIG and Mr. HUNN.

D. WINTER COURSE IN AGRICULTURE.

(Being a part of University Extension in Agriculture.)

IN CHARGE OF PROFESSOR CRAIG, MORRILL 17.

1. Agriculture. A study of field crops and farm management devoting as much time as possible to the details of special crops, as corn, potatoes, wheat and oats. An epitome of courses 1 and 3. Professor ROBERTS and MR. J. L. STONE. (A. Course 12.) 9. Daily except Saturday. *Morrill 19*.

2. For Winter Course Students. Practice in judging and scoring horses and sheep; work in shops and barns; running engines and other farm machinery. (A. Courses 2 and 4.)

3. Animal Industry. Principles of breeding animals, history and development of dairy and beef breeds of cattle, and other domestic animals. Assistant Professor WING and MR. J. A. FOORD. (B. Course 25) T., Th., 8, S., 9.

4. Dairy Husbandry. Lectures on milk and its products and instruction in butter making. Assistant Professor WING and MR. J. A. FOORD. (B. Course 25.) M., W., F., 8. *Dairy Building*.

5. Horticulture. An examination of the principles of fruit culture with laboratory practice in the propagation of plants. Professor CRAIG. (C. Course 10.) T., Th., 11. *White 12*.

6. Chemistry of the Farm. A study of soil formation, the composition of plants, and the maintenance of fertility by commercial fertilizers and farm yard manures. Hours to be arranged. Professor G. C. CALDWELL and Mr. G. W. CAVANAUGH.

7. Economic Entomology. A discussion of the more important insect pests

and the special methods of combating them. M., W., 10. *White 12*. Assistant Professor SLINGERLAND.

8. Applied Botany. A study of the fundamental principles of how the plant grows; food supply and the influence of external conditions with special reference to cultivated plants. Hours to be arranged.

9. Poultry Keeping, A discussion of the domestic breeds of poultry; principles of feeding and management. (B. Course 28.) T., Th., 12. *Dairy Building*. Assistant Professor WING.

10. Diseases of Farm Animals. This is a special source of lectures arranged and given for the benefit of winter course students by Professor LAW. S., 8. *Veterinary Building*.

11. The Farm Library. This course has to do with the selection of a small home library including books of popular science, history and literature. These will be examined and discussed. T., Th., F., 11. *White 12*. MRS. ANNA BOTSFORD COMSTOCK.

12. Special Lectures. A course of twelve lectures will be given by members of the faculty of the College of Agriculture and heads of departments whose work is somewhat closely allied. These lectures cover a wide range of agricultural knowledge. M., 4:30. *White 12*.

Clubs. The Agricultural and Horticultural clubs are open to winter course students, who are cordially invited to attend and take part in the discussions.

E. CHEMISTRY.*

4. Introductory Inorganic Chemistry. Three hours. For students who may prefer to take a three-hour course extending through the entire year. (a) Lecture, W., 11, *Ch. L. R. 1*. (b) Recitations in sections as assigned. (c) Laboratory practice (two and one-half hours actual practice), in sections as assigned. Professor TREVOR and Dr. JESSEL; ———, ———, and ———.

25. Agricultural Chemistry. Elementary course, for students in the special winter course in Agriculture. Christmas recess until Easter recess. Hours to be arranged. Professor CALDWELL and Mr. G. W. CAVANAUGH.

26. Agricultural Chemistry. General course. Four hours throughout the year. T., Th., F., S., 9 *Ch. L. R. 2*. The general subjects treated in this course are the composition of plants, the chemistry of their growth, the sources of the supply of the food of the plants, the chemical and physical properties of soils, the composition, and the mode of action of fertilizers, and the chemistry of the products of the farm. Professr CALDWELL and Mr. G. A. SMITH.

27. Agricultural Chemistry. Readings from journals. For those who have completed course 26. One hour per week, by appointment. *Ch. L. R. 2*. Professor CALDWELL.

(Laboratory work in this subject is given under course 14.) .

* All other courses in Chemistry are open to students in Agriculture.

14b. Agricultural Quantitative and Qualitative Analysis. Open only to those who have taken courses 1 or 2 and 26. Professor CALDWELL.

F. ENTOMOLOGY.*

7. Economic Entomology. Lectures on applied entomology. Discussion of the more important insect pests and of the methods of combating them. Christmas recess until Easter recess. One hour credit. M., W., 10, *White* 12. Assistant Professor SLINGERLAND.

G. BOTANY.†

(Courses 1 and 2 form a continuous course through the year.)

1. General Comparative Morphology and Physiology of plants. Three hours. First half-year, and second half-year until Easter recess. A study of representative plants of various groups, and of the fundamental principles of plant life and relationship. Lectures, M., 11. Laboratory practice and demonstrations, T., 2-5 and W., 11-1; and if another section is formed, Th., 2-5, and F., 11-1. One forenoon and one afternoon session must be taken each week. Professor ATKINSON, DR. DURAND, MR. CLARK, and ———.

2. Special Morphology and Adaptations of Higher Plants. Continues from course 1. Second half-year after Easter recess. Three hours. Studies of typical plants representing the more general groups of angiosperms. Four field excursions for the purpose of studying the local flora. Lectures M., 11. Laboratory work in sections as in course 1. Assistant professor ROWLEE, Dr. WIEGAND and Mr. CLARK.

4. Short winter course in Botany for students in Agriculture. Two hours. A study of general morphology and of the fundamental principles of plant growth with special reference to cultivated plants. Fungus diseases of cultivated plants. Hours by appointment. Dr. DUGGAR.

5. Geographical Botany. Second half-year. Lectures S., 9. The distribution of plants over the surface of the earth. Practical field studies in plant distribution; also the preparation of an herbarium representing the local flora. Photographs are used to illustrate the distribution of plants. Assistant Professor ROWLEE and Mr. HASTINGS.

H. VETERINARY SCIENCE.‡

20. The Digestive Functions, Circulation, Respiration, Metabolism and Excretion. The work given in this course precedes quite logically that of Pharmacology and Therapeutics. First term, 1 lecture per week, Th., 11. Second half-year, two lectures each week, W., and F., 10. Dr. FISH.

*All other courses in Entomology are open to students in Agriculture.

†All other courses in Botany are open to students in Agriculture.

‡Subject to rule found on page 230 of University Register.

37. Obstetrics and Zootechnics. Five lectures or recitations per week. Second half-year. M., W., Th., F., 11, Tu., 10. Professor W. L. WILLIAMS.

This course alternates with course 33. It will be given to second and third year students in 1900-1901.

Diseases of Farm Animals (Special for Agricultural students). One hour. Winter term. S., 8. Professor LAW.

THE WINTER COURSES IN AGRICULTURE AND DAIRY HUSBANDRY.

There are many persons who cannot spend two or more years at college, but who would receive great benefit from lectures and practice during the winter months. To meet the needs of such persons the Winter Course in Agriculture (see below) and the Winter Dairy Course (see page 20) are offered. They begin the first week in January of each year and extend through eleven weeks.

Persons who are of good moral character and seventeen years of age may be admitted by the Director of the College without a formal examination, but are required to file a letter of recommendation and to satisfy the Director that their previous training has been such that they can pursue the studies elected with profit to themselves and credit to the University.

Students may elect either one of the following lines of study :

I. WINTER COURSE IN AGRICULTURE.

Prescribed work—Agriculture, 5 hours per week. (Course 12, p. 15.)

Horticulture, 2 hours per week. (Course 10, p. 17.)

Animal Industry, 2 hours per week. (Course 25, p. 15.)

Agricultural Chemistry, 2 hours per week. (Course 25, p. 18.)

Two hours per day of practice in educational work in barns, dairy houses, forcing houses and laboratories.

Elective work—A minimum of four hours per week must be taken in addition to the prescribed work from the subjects named below :

Entomology, 2 hours per week. (Course 7, p. 19.)

Botany, 2 hours per week. (Course 4, p. 19.)

Dairy Husbandry, 2 hours per week. (Course 25, p. 15.)

Poultry Keeping, 2 hours per week. (Course 28, p. 16.)
Political Economy, 1 hour per week. (Special.)
Diseases of Farm Animals, 1 hour per week. (Special,
p. 21.)

On pp. 12-13 will be found a general synopsis of the work in those subjects more closely related to technical agriculture and on pp. 14-19 are given the courses of instruction covering the same. The instruction given in the Winter Course in Agriculture is the same as that in the Special and Regular Courses, so far as time will permit. In most cases it becomes necessary to organize special classes, and owing to the brief time devoted to the work the topics are treated chiefly from the practical rather than from an historical, scientific or theoretical point of view.

Students in this course have the same privileges in the use of museums, libraries, reading rooms and gymnasium as other students. They are encouraged to join and take part in the discussions of the Agricultural and Horticultural Societies.

II. THE WINTER DAIRY COURSE.

This course is designed primarily to meet the needs of those butter and cheese makers who desire more thorough and comprehensive instruction, and to train those who are looking toward butter and cheese making as a profession. The instruction is largely given from the standpoint of the factory, while that in the General Course in Agriculture is given with particular reference to the needs of the farm dairy.

No more than fifty can be accommodated in the building. The class will be limited to this number and applications should be made at as early a date as practicable in order to insure admission.

The instruction is partly by lectures and recitations, but largely by actual practice in the Creamery, Cheese Factory and Dairy Laboratory, the order being about as follows :

Lectures on milk and its products, 2 hours per week.

Lectures on subjects related to dairying, 10 hours per week.

Cheese room practice, twice weekly, 4-6 hours each.

Butter room practice, twice weekly, 4-6 hours each.

Dairy laboratory practice, twice weekly, 2-4 hours each.

Problems and book-keeping, 2 hours per week.

The lectures on milk include a full discussion of the structure of the milk gland, the secretion of milk and its care and preservation during all the process of manufacture. The lectures are supplemented by constant references to the current dairy literature as found in periodicals and experiment station publications. These lectures are given two days per week extending through the term. On alternate days there will be given short courses of lectures (two to ten in a course) on various subjects intimately related to dairy husbandry and factory management. These include the

care and management of dairy cattle, the compounding and feeding of rations, the preservation and use of farm manures and commercial fertilizers, the symptoms and treatment of the more common diseases of cows, the outlines of dairy bacteriology, the care and management of engines and boilers, etc., etc. Most of these courses are given by special lecturers of the College of Agriculture.

The instruction in cheese making is given in the cheese room, and for this purpose the class is broken up into small squads, and each squad is put in charge of a vat, and the members actually make the cheese under the eye and hand of a competent instructor. The cheese factory room is equipped with the best modern apparatus.

The instruction in butter making is given in the same way as the instruction in cheese making. The creamery is also fully equipped with modern apparatus, and all the more important kinds of centrifugal separators will be run side by side. The use and care of these separators forms an important part of the creamery instruction, and is under the care of a thoroughly competent instructor.

The laboratory work consists largely in detecting adulterations and sophistications of milk by the means of the Babcock tester and lactometer. Opportunity is also given to those who desire for microscopical examination of milk and its products,

The instruction classed under the head of "problems and book-keeping" is given in connection with the laboratory practice, and consists of creamery and cheese factory book-keeping, keeping of patrons' accounts, declaring dividends, making reports. etc., etc.

It is the single aim to make all of the instruction at once thorough and practical.

All students in the dairy course are required to provide themselves with at least two suits of workroom uniform, consisting of overalls, jacket and caps of *white* muslin, such as are worn by painters and paper hangers.

Students in this course and in the General Course in Agriculture as well, enjoy the advantages of the equipment of the other departments of the College of Agriculture. (See Equipment, p. 5.)

Upon completion of the Dairy Course the student may become an applicant for a Certificate of Proficiency in Dairy Husbandry upon the following general terms and conditions :

"Persons who have passed one full term in attendance upon the Dairy Course and have satisfactorily passed all of the examinations required of them, may become candidates for a Certificate of Proficiency in Dairy Husbandry.

"Such candidates must spend one full season in work at an approved creamery, cheese factory or dairy. They must report regularly upon blanks furnished for the purpose, such information in regard to their factory as

may be required of them, and they must hold their factory in readiness for a visit of inspection at any time.

"Upon satisfactorily completing these requirements a certificate will be granted, though under certain conditions a longer period than a single season's work may be required."

THE AGRICULTURAL EXPERIMENT STATION.

The Agricultural Experiment Station of Cornell University is a Department of the College of Agriculture. Incidentally, students may receive instructions from observing and discussing the experiments which are being carried on. The Federal Law passed March 2, 1887, briefly outlines the object of the Experiment Station in the following words: "To aid in acquiring and diffusing among the people of the United States useful and practical information on the subjects connected with agriculture, and to promote scientific investigation and experiment respecting the principles and applications of agricultural science." . . . It further provides "That bulletins or reports of progress shall be published at said station at least once in three months, one copy of which shall be sent to each newspaper in the states or territories in which they are respectively located, and to such individuals actually engaged in farming as may request the same and as far as the means of the station will permit." The entire plant of the College of Agriculture is used, as occasion demands for conducting experiments in animal and plant growth and reproduction, and in applied, comparative and scientific research and investigations.

In pursuance of Chapter 430 of the Laws of 1899 of New York State, provision is made for "giving instruction throughout the state by means of schools, lectures and other University extension methods, or otherwise, and in conducting investigations and experiments; in discovering the diseases of plants and their remedies; in ascertaining the best method of fertilization of fields, gardens and plantations; and best modes of tillage and farm management and improvement of live stock; and in printing leaflets and disseminating agricultural knowledge by means of lectures or otherwise; and in preparing and printing

for free distribution the results of such investigations and experiments, and for republishing such bulletins as may be useful in the furtherance of the work, and such other information as may be deemed desirable and profitable in promoting the agricultural interests of the State.”

The Agricultural Experiment Station was first organized in 1879. It was reorganized in 1888, after the passage of the Federal Law. The first appropriation by the State establishing Extension work in Agriculture was made in 1894.

The publications of the Agricultural Experiment Station include to date fourteen annual Reports and one hundred and ninety-four bulletins. These publications are distributed free to such residents of the state as apply for them so far as the means of the station will permit.

CALENDAR.

The entrance examinations for students in the Regular Course are held in September and June. The instruction begins in the fall term, September 28, 1901; in the General Winter Course in Agriculture and the Dairy Course, January 3, 1902. Students may be excluded if not present at the beginning of the term.

FEES AND EXPENSES.

Tuition is free to students pursuing the prescribed course in *Agriculture*, and *intending to complete* that course; and to *special and graduate students in agriculture* taking at least two-thirds of their entire work in the departments of agriculture, horticulture, and in the courses in agricultural chemistry and economic entomology. (See page 11).

Incidental fees required as follows :

Post graduate students, term one-half year.	\$ 7 50	per term
Regular students, 3d and 4th years, term one-half year...	7 50	“
Special students, term one-half year.....	7 50	“
For general winter course students, term 11 weeks.....	5 00	“
For general winter course students from outside New York State, term 11 weeks.....	30 00	“
For general winter course students in Agriculture electing practice in Dairy Husbandry, term 11 weeks.....	12 50	“
For winter Dairy Course students “ “	15 00	“

A fee of \$5, to cover expenses of graduation, degrees, etc., is charged to each person taking the baccalaureate degree. This fee must be paid at least ten days before Commencement.

The fee charged for an advanced degree is \$10, and it must in all cases be paid at least ten days before Commencement.

Deposits are required in the various laboratories where work is taken, ranging from \$1.50 to \$10.00 per term according to the amount and nature of the work.

The expense of living in Ithaca varies from \$3.50 to \$5.00 per week for board and lodging.

For further particulars address I. P. Roberts, Dean of the College of Agriculture, Cornell University, Ithaca, N. Y.

CATALOGUE OF STUDENTS.

POST-GRADUATE STUDENTS.

Candidates for Advanced Degrees.

CAVANAUGH, GEORGE WALTER, B.S., 1896.....	Ithaca
Agricultural Chemistry, Organic Chem. and Anal.Chem.	Ph.D
CLINTON, LOUIS ADELBERT, B.S. (Mich. Agr. Coll.), 1889.....	Ithaca
Agriculture, Animal Industry, Systematic Botany.....	Ph.D.
FOORD, JAMES ALFRED, B.S. (N. H. Coll. of A. and M.A.) 1898.....	Walpole, N.H.
Dairy Husbandry, Agriculture.....	M. S. in Agr.
KOCHI, CHUJIRO, B.S. (Ohio Wesleyan Univ.) 1896.....	Bingo, Japan
Entomology, Histology, Botany.....	Ph.D.
LAUMAN, GEORGE NIEMAN, B.S.A. 1897.....	Allegheny, Pa.
Horticulture, Agriculture.....	A.M.
LIPMAN, JACOB GOODALE, B. Sc. (Rutgers) 1898, A. M. (Cornell Univ.), 1900.....	Woodbine, N. J.
Agricultural Chemistry, Veterinary Science.....	Ph.D.
*RICE, WILLIAM JAMES, A.B. (Lake Forest Univ.), 1899, A.M. (same), 1900.....	Portage, Wis.
Entomology, Horticulture.....	M.S. in Agr.
ROGERS, JULIA ELLEN, Ph.B. (Iowa State Univ.), 1892.....	Minburn, Iowa
Entomology, Agriculture.....	M. S. in Agr.
SANDSTEN, EMIL PETER, B.Agr. (Univ. of Minn.), 1895, M.S. (same), 1898.....	St. Anthony Park, Minn.
Horticulture, Forestry, Agriculture.....	Ph.D.
SMITH, JAMES MACE, B.S. (Mich. Agr. Coll.), 1882.....	Forest Home
Horticulture, Botany.....	M. S. in Agr.

Ph. D. Conferred 1901.

MUNSON, WELTON MARKS, B.S. (Mich. Agr. Coll.), 1888, M.S. (same) 1892.....	Orono, Me.
Horticulture, Histology, Botany.	

M. S. in Agr. Conferred 1901.

DAVIS, VERNON HAYES, B.Sc. Agr. (Ohio State Univ.), 1900... Byesville, O.	Agriculture, Horticulture.
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*Died April 3, 1901.

EGBERT, KNOTT CROCKETT, B.Agr. (Ohio State Univ.), 1890	Tiffin, O. Animal Industry, Soil Physics.
HAYWARD, HARRY, B.S. in Agr., 1894	State College, Pa. Dairy Husbandry, Dairy Bacteriology.
HUNZIKER, OTTO FRED, B.S.A., 1900.....	Zurich, Switzerland Animal Industry, Dairy Bacteriology.
MCDONALD, WILLIAM, B.S. (Univ. of Minn.), 1898....	Edinburgh, Scotland Agriculture, Botany.
MCLALLEN, HENRY CRANE, B.S.A., 1898.....	Trumansburg Dairy Husbandry, Dairy Bacteriology.
MILLER, MERRITT FINLEY, B.S. in Agr. (Ohio State Univ.), 1900	Grove City, O. Agriculture, Horticulture.
STUBENRAUCH, ARNOLD VALENTINE, B.S. (Univ. of California), 1899	Berkeley, Cal. Horticulture, Forestry.

Graduates of 1901 (B.S.A.)

BAXTER, EUGENE MONELL	Ithaca
CURTIS, RALPH WRIGHT.....	Beloit, Ala.
FLEMING, BRYANT.....	Buffalo
KNOX, HARRY MASON	Canton
KYLE, EDWIN JACKSON.....	Kyle, Tex.
PHILLIPS, ADAMS	Thornton
ROBERTS, ROGER MARR	Ithaca
RUGGLES, ARTHUR GORDON.....	Annapolis, N. S., Can.
TIFFANY, JOHN BLAKESLEE	Hop Bottom, Pa.
TOOLEY, WILLIAM BENJAMIN.....	Raceville
TUCKER, GILBERT MILLIGAN, JR.....	Albany
UNDERDOWN, MILTON MILLER	Taughannock Falls
VAN DINE, DELOS LEWIS.....	Ithaca
WEST, GEORGE HUTTON.....	Reber

Seniors.

BLUFORD, JOHN HENRY.....	Cappahoosie, Va.
BRINCKERHOFF, ARTHUR FREEMAN.....	Mount Vernon
CLAUSEN, GEORGE ULMER.....	Sharon Springs
EASTMAN, ROBERT EDWARD.....	Bloomington, Kas.
HOSFORD, GEORGE WHEELER.....	Mexico
KRAATZ, CHARLES HENRY	Akron
LAUDER, ANDREW GILBERT.....	Binghamton
MACLEOD, NORMAN DONALD.....	Caledonia
*ROE, HERBERT SPENCER.....	Wolcott
WENBORNE, CHARLES WILLIAM.....	Buffalo

Juniors.

CALDWELL, EDWARD LASATER.....	Corpus Christi, Tex.
COWELL, ARTHUR WESTCOTT.....	Auburn
GLASSON, ELWIN JAMES	Ithaca
HOPPER, HERBERT ANDREW.....	Ithaca
KELSEY, CHARLES EVERETT.....	Tonawanda

* Died Jan. 12, 1901.

MORGAN, WILLIAM MONTGOMERY.....	Seaford, Del.
ROACH, RAYMOND J.....	Akron
SAWAI, ZENHICHI.....	Kitagum, Japan
SCHRADER, AUGUST HENRY.....	Wellsville
SEWARDS, THEODORE MATTHEW.....	New York
WARD, WILLIAM JAMES.....	Montclair, N. J.

Sophomores.

AUERBACH, ARNO FRED	Brooklyn
BRUNS, GUSTAVE JOHN.....	Niagara Falls
CHAPMAN, CHARLES HENRY.....	Washington, D. C.
COVILLE, HOWARD GRENVILLE.....	Marcellus
CRAIGHEAD, HUNLIE WILLIAM.....	Boston, Mass
CURTIS, MARION LOUDEN.....	Rochester
FLETCHER, PHILENA BELLE	Bainbridge
KINNE, HIRAM EARL	Hartwick Seminary
MORGAN, ALFRED COOKMAN.....	Concord, Del.
RANSOM, FREDERIC GARFIELD.....	Buffalo
RYDER, EDWARD KIRKE.....	Worcester
SHIELDS, NORWOOD RARASON.....	Ithaca
STONE, ARCHIBALD.....	Binghamton
THOMPSON, WALTER IRA.....	Holland Patent

Freshmen.

(This announcement is prepared before the entrance of the Freshman class of 1901-1902, which occurs in September.)

Special Students.

BARLOW, FLOYD SCHOONMAKER.....	South Onondaga
BECKWITH, GROVER.....	North Pembroke
BURTON, CHARLES ADDISON.....	Brockton
COCKBURN, FRANK MELVIN.....	Silver Creek
COLE, CLAUD COAN.....	Ovid
COULSTON, MARY BOLLINGER.....	Ithaca
CROCKER, EARL DIXON.....	Sennett
CROUCH, HARRY ENSIGN.....	Cohocton
CURTIS, FRANK DANFORTH.....	Saratoga Springs
CURTIS, HARRY SHERMAN.....	Beloit, Ala.
DEAN, DANIEL JEFFERSON.....	Nichols
EARL, ROBERT ELMORE.....	Highland Mills
ENGLISH, CHARLES WILLIAM.....	Ithaca
FLETCHER, WILLIAM FRANKLIN.....	Bainbridge
KELLER, GEORGE NELSON.....	Lexington, Ky.
MCLAURY, DORR WESTCOTT.....	Portlandville
MARTINEZ, ROBERT CLAUDIO.....	Santade, Argentine Republic
MATTHEWS, ROBERT BAILEY..	Scranton, Pa
MILLERD, ALLING	Auburn
MOULTON, LOUIS HAMILTON.....	Cuba
MYERS, EDGAR WILLIAM.....	Auburn
PARKE, LESTER ANDREW	Wesley
POWELL, PHILLIPS BAYARD.....	Clinton
PRATT, ORVILLE CHARLES.....	San Francisco, Cal.

*PROCTOR, PERCY JR.	Oakland, Md.
REED, ROY W.	Hemlock
REINHOLD, WILLIAM ADOLPH.	Tompkinsville
RICHARDS, FRANCIS HOWE	Enfield, Mass.
ROE, ALONZO LAVERNE	Plymouth
ROGERS, JOEL CYRUS	Denmark, Mich.
SAGENDORPH, ARTHUR HENRY.	Spencer, Mass.
SEWARD, ELLIOT HUNTINGTON.	Utica
SEWARDS, THEOPHILE FRANCIS	New York
STALEY, BOYD DELOS.	Jacksonville, Fla.
STANEFF, IVAN GEORGE.	Shoomla, Bulgaria
STANEFF, JEKO	Shoomla, Bulgaria
STANYON, GRACE MARGARET	Ithaca
STONE, HARRY STANSBURY.	Scranton, Pa.
TAYLOR, GEORGE MOTT.	Owensboro, Ky.
TAYLOR, NORMAN.	Yonkers
UNDERDOWN, WILLIAM EDWARD.	Taughannock Falls
WELSH, EDWARD CRISTY	German Valley, N. J.
WHITE, BERNARD CLARENCE.	Edella, Pa.
WILLIAMS, HORACE GEORGE.	East Hartford, Conn.
WILLIAMS, HARRISON SHELTON.	Poughquag
WILLIAMS, MARY	Poughquag
WILLIAMSON, LESTER HARTRANFT.	New Brunswick, N. J.

Students in the Winter Course in Agriculture

ARNOLD, MARY L.	Plainfield, N. J.
BROWN, WALTER M.	Unadilla Forks
BUTTON, HARRY FREEMAN.	Cottons
CARTER, WILLIAM.	West Chester, Pa.
CLEMENTS, DAVID H.	Liberty
COLE, ASA CANNING	Little Falls
COWDEN, CHARLES WILLIAM	Versailles
CRARY, WILLIAM ROBY	Liberty
GEROW, CLARENCE HUDSON.	Washingtonville
HALL, ARTHUR LINCOLN	Brooklyn
HARDING, ALKALI BENNETT	Hornellsville
HOLMES, ERNEST MONROE	Franklinville
KING, WILLIAM EDMUND.	So. Kortright
LACY, JOHN WITTER	Stanley
MATTHEWS, ALBERT SCOTT	Buffalo
NEWKIRK, FLAVIUS ADELBERT.	Liberty
PARNELL, GARFIELD S.	Riga
PHILLIPS, CLAYTON.	Thornton
PLACE, IRA THORPE	Oswego
POEY, JOHN FRANCIS.	Peekskill
QUA, ALBERT CHAPMAN	East Hartford
REED, MABEL.	Somerville, N. J.
RICHARDS, JAMES BLAIR	Vernon
ROBERTS, GEORGE VAVASOUR Jr.	Port Byron
ROGERS, HARRIETTE	Garrison
ROYCE, CECIL MAYNARD	Berkshire
SACKETT, GRANGER	Irving

* Died July 27, 1901.

SHAFER, ABRAM FARWELL	Olean
SHAPLEY, SANFORD LEWIS	Randallsville
SHEPHERD, JOHN WESLEY	Penn Yan
SHEPSON, HARRY MARTIN	Farmer
SLADE, WINOGENE SCOTT	Castile
ULMER, REUBEN DAVID	Hepburn, Pa.
UPDIKE, GEORGE HOMER	Waterburg
VAN VLEET, BERT SNYDER	North Hector
VREELAND, JOHN ALBERT	Irona
WALKER, JAMES CLARK	Linwood
WELCH, WILLONEY	Columbia Center
WELLING, CHARLES SPENCE	Johnsonville
WIESE, NICHOLAS EDWARD	Wawarsing
WILLIAMSON, ORAN ETHAN	West Township
WINTERS, HARRY BOYD	Smithboro
WOOD, FRANKLIN MARTIN	Woodville

Students in the Dairy Course.

BAKER, ARTHUR WILLIS	West Dryden
BRADLEY, ELTON CHARLES	Madrid
BROOKS, WILLIAM JOHN	Franklin Center, Que., Can.
CLARK, MANLEY	Schenevus
CROSBY, ROLAND	Wayne
CROSBY, WALLACE KELLY	Halcott Center
DARLING, FRANK HALBERT	Pitcher
DAVIES, ROBERT NORMAN	Arden
DAVIS, WILLIAM JAMES	Dillin
DUNHAM, JOHN	Old Chatham
ELLIS, FRANCIS EDGAR	Varna
GILLETT, SCOTT	East Scott
GLAZIER, CLAYTON	Dryden
GOWEN, THOMAS EDWARD	Sherburne
HARTER, JACOB WILLIAM	Columbia
HETHERINGTON, ARTHUR L.	Big Flats
HOLDRIDGE, ANDREW JACKSON	Savannah
HOLTON, NOEL ELIJAH	Collins Center
HOWE, HENRY TOWNLEY	Genoa
JENNEY, JAY EARLE	Waterville
KARLEN, ALBERT BENJAMIN	Trenton, N. J.
KEENE, GLENN MILLER	Trumbull
KELLY, CHARLES MORTIMER	Burke
KLING, HENRY LANSING	Lawyersville
LACEY, FRANK WILLARD	Black Creek
MCENTEE, CHARLES	Kingston
MCMAHON, THOMAS	Stamford
MARKS, CLINTON JAMES	South Valley
MARSH, PERCY DUANE	North Brookfield
MARSH, RALPH ALEXANDER	Norfolk
MASON, HERBERT WASHINGTON	Sullivan, N. H.
MORSE, JAMES BURTON	Sanford
MULKS, CLINTON WARREN	Slaterville
PHELPS, EARL MALLERY	Cortland
PHILLIPS, EDWARD JOHN	Slaterville
POTTER, LEWIS EMMETT	Eaton

ROBERTS, SAMUEL WILLIAM	Reimsen
SANFORD, EUGENE BURTON	Honeoye Falls
SCOTT, HAWLEY FRANCIS	Bridgeport
SIMPSON, YALE JOHN	Falconer
SMITH, HORATIO SEYMOUR	Asbury
SNYDER, JOHN IRVING	Marion
STEWART, FLOYD HARLEY	Kirk
STEWART, MEARLE FISK	Mariposa
VAN DEUSEN, HOWARD SCHUYLER	East Greenbush
VAUGHAN, ARTHUR EUGENE	North Bay
WEBSTER, HEZEKIAH GOODWIN	Sennett
WEEKS, HERBERT	Marcellus
WRIGHT, CHARLES WESLEY	Worcester, Mass.
WRIGHT, FRANK SANFORD	Windsor
WRIGHT, ROBERT WILLIAM	Binghamton

CORNELL UNIVERSITY

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COLLEGE OF AGRICULTURE

Degree, B.S.A..

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Degree, B.Arch.

COLLEGE OF CIVIL ENGINEERING

Degree, C.E.

SIBLEY COLLEGE OF MECHANICAL ENGINEERING AND MECHANIC ARTS

Degree, M.E.

CORNELL UNIVERSITY—COLLEGE OF AGRICULTURE
DAIRY COURSE.

APPLICATION FOR ADMISSION.

Name of Applicant,..... Date of Birth.....

Name and address of parent or guardian,.....

P. O. County, State

PREVIOUS SCHOOL TRAINING :

Name of School, No. of terms in attendance,

STUDIES OTHER THAN COMMON BRANCHES PURSUED :

Do you use tobacco ? Give experience if any in factory work,

REFERENCE :—I am personally acquainted with the above applicant and believe to be of good
moral character, industrious and studious.

Position,

References should preferably be your teacher, pastor, or some public officer in the community.

Applicants for admission to *Winter Course in Agriculture* will fill out blank on other side.

(OVER.)

CORNELL UNIVERSITY—COLLEGE OF AGRICULTURE.
WINTER COURSE IN AGRICULTURE.

APPLICATION FOR ADMISSION.

Name of Applicant,.....Date of Birth.....

Name and address of parent or guardian,.....

P. O.,.....County,.....State.....

PREVIOUS SCHOOL TRAINING ;

Name of School.....No. of terms in attendance.....

STUDIES OTHER THAN COMMON BRANCHES PURSUED :

REFERENCE :—I am personally acquainted with the above applicant and believe.....to be of good moral character, industrious and studious.

Position.....

Reference should be preferably by your teacher, pastor, or some public officer in the community.
Applicants for admission to *Dairy Course* will fill out blank on the other side.

(OVER.)



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